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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,728	12/29/2003	Marvin J. Williams JR.		2033

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LAW OFFICE OF ADRIENNE B. NAUMANN
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EXAMINER

GELLNER, JEFFREY L

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/747,728

Applicant(s)

WILLIAMS, MARVIN J.

Examiner

Jeffrey L. Gellner

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

A "Cross Reference" section should be clearly differentiated. And, 10/683,889 and 09/752,956 should show the dates these applications were filed.

In the "BRIEF DESCRIPTION OF THE DRAWINGS" section the term "wheat grass" should probably be --wheat-- so as to not be confused with wheatgrass, *Agropyron* spp. The term "wheat grass" is used occasionally in the Specification and should be changed to --wheat--.

Appropriate correction is required.

Election/Restrictions

Applicant's election of Invention I, Species B, in the reply filed on 27 December 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claim 14 is withdrawn because it is drawn to the non-elected invention; claim 8 is withdrawn because it is drawn to the on-elected species.

Claim Objections

Claim 1 is objected to because of the following informalities:

In claim 1, line 4, Examiner questions whether the term "harvested" is proper in this context. Possibly, -chopping--, --mowing--, or --cutting-- would be more precise.

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In claim 1, lines 12-13, "said first commercial crop and second commercial crop" should probably be --said at least two commercial crops-- to conform with prior language in the claim.

In claim 1, line 14, "said commercial crops" should probably be --said at least two commercial crops-- to conform with prior language in the claim.

In claim 1, lines 15-16, "said intercropped commercial crops" should probably be --said at least two commercial crops-- to conform with prior language in the claim.

In claim 1, lines 16, "said green manure crop" should probably be --said annual green manure crop-- to conform with prior language in the claim.

In claim 1, line 16, "organic debris" should probably be --said organic residue-- to conform prior language in the claim.

In claims 2 and 3, lines 1-2, "said first intercropped commercial crop" should probably be --one of said at least two commercial crops-- to conform with prior language in claim 1.

In claim 4, lines 2 and 3, "said intercropped commercial crop" should probably be --one of said at least two commercial crops-- to conform with prior language in claim 1.

In claim 5, lines 15-16, "two said commercial crops" should probably be --said at least two commercial crops-- to conform with prior language in the claim 1.

The above objections are given as examples. Applicant should check the remaining claims for conformity of language. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1 and 10-13 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 11, the step (4) of “dispersing said first portion” is indefinite because it is unclear how dispersing can be achieved after the intercropping step. Would not the green manure be dispersed during harvesting of this crop?

In claim 1, line 11, “said first portion of said combined mulch” lacks antecedent basis. It should probably be --said first portion of said combined green manure--.

In claim 10, line 2, the term “conventional mechanical forage harvester” is indefinite because there is no objective standard to determine which forage harvesters are conventional.

In claim 11, line 2, the term “combination green manure” lacks antecedent basis.

In claim 12, lines 3 and 4, the terms “conventional corn planter” and “conventional seed drill” are indefinite because there is no objective standard to determine when these machines are conventional.

In claim 13, line 4, “prior art tractor” lacks antecedent basis.

Claim Rejections - 35 USC §103

The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-7 and 10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Iragavarapu et al. (Journal of Production Agriculture) in view of Lu et al. (J. of Sustainable Agriculture).

As to claim 1, Iragavarapu et al. disclose the method of using intercropping of at least two commercial crops (“corn” and “soybean” from abstract). Not disclosed is the use of an annual green manure crop in a predetermined area. Lu et al., however, disclose an annual green manure crop (“winter annual cover crop” from abstract) planted in a predetermined area (the field where crops are grown) and harvesting the annual green manure crop (in that the cover crop is harvested before the planting the commercial spring-planted crop), the annual green manure crop would have two portions (in that the leaves are the first portion and the stems the second portion of any plant) and would combine with the organic residue of the soil to form a combined green manure, whereby, the combined green manure would provide nutrients to the at least two commercial crops and provide ground cover. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method Iragavarapu et al. by adding the use of a annual green manure crop as disclosed by Lu et al. so as to increase profitability of the farming system (see Lu et al. at abstract).

As to claims 2 and 3, Iragavarapu et al. as modified by Lu et al. further disclose one of the intercropped crops as soybean (see abstract of Iragavarapu et al.).

As to claim 4, Iragavarapu et al. as modified by Lu et al. further disclose the other commercial crop as corn (see abstract of Iragavarapu et al.).

As to claim 5, Iragavarapu et al. as modified by Lu et al. further disclose the intercropped commercial crop as soybeans and corn (see abstract of Iragavarapu et al.).

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As to claim 6, Iragavarapu et al. as modified by Lu et al. further disclose the intercropped commercial crop as soybeans and corn (see abstract of Iragavarapu et al. in that the beginning of the abstract states that strip-cropping only corn and soybean is a regular procedure).

As to claim 7, Iragavarapu et al. as modified by Lu et al. further disclose the intercropped commercial crop as soybeans and corn in alternating patterns of areas of rows (see abstract of Iragavarapu et al.).

As to claim 10, the limitations of Claim 7 are disclosed as described above. Not disclosed is the green manure crop mowed with a conventional mechanical forage harvester. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Iragavarapu et al. as modified by Lu et al. by using a conventional mechanical forage harvester since this is a known regular farming practice.

Allowable Subject Matter

Claim 9 and 11-13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ghaffarzadeh discloses in the prior art rotation where wheat can be considered a green manure crop for the next crop. Williams Jr discloses a patent from the instant inventor.

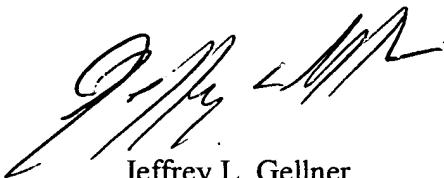
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Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Jeffrey L. Gellner whose phone number is 703.305.0053 (after 4 April 2005 use: 571.272.6887). The Examiner can normally be reached Monday through Thursday from 8:30 am to 4:00 pm. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Peter Poon, can be reached at 703.308.2574. The official fax telephone number for the Technology Center where this application or proceeding is assigned is 703.872.9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.

A handwritten signature in black ink, appearing to read 'J. Gellner', with a stylized flourish at the end.

Jeffrey L. Gellner
Primary Examiner